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ABSTRACT

Issues pertaining to underprepared students in colleges are addressed in five papers and an annotated bibliography. In "Can Higher Education Be Equal and Excellent Too?" K. Patricia Cross claims that colleges can provide equal access and quality if major changes are made concerning such outmoded practices as faculty-load formulas and credit-hour fundings. Darrel A. Clowes, in "More Than a Definitional Problem," distinguishes between remedial, compensatory, and developmental education. "Quality and the Open-Door Community College," by Robert H. McCabe, considers the need for full college reform and the importance of accommodating individual differences, integrating communications technology, and providing variable-time programs. In "The Miami-Dade Breakthrough," Cross describes an example of curriculum reform, management changes supporting instructional innovation, and faculty role changes. In "Underprepared Students at Public Research Universities," Martin A. Trow suggests that public higher education needs to play a larger role in the preparation of students for college-level work. He discusses the crisis of secondary education and whether college credit should be awarded for basic skills courses. Finally, 30 abstracts of publications are presented in "Underprepared Learners: An ERIC Bibliography." (SW)

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K. Patricia Cross is visiting professor at the Harvard University Graduate School of Education. Her discussion of the problems surrounding underprepared learners and of the innovative programs at Miami-Dade Community College was presented as "On Old Practices and New Purposes in Education" to the Conference on Remedial and Developmental Mathematics in College: Issues and Innovations, April 1981, in New York.

Darrel A. Clowes is associate professor in a community college/adult education program at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. A version of this article appeared in the *Journal of Developmental & Remedial Education*, volume 4, no. 1 (1980) and appears here with permission.

Robert H. McCabe is president of Miami-Dade Community College in Miami, Florida. This paper was presented at the AAHE National Conference on Higher Education, March 1982, in Washington, D.C.

Martin A. Trow is director of the Center for Studies in Higher Education and professor of sociology in the Graduate School of Public Policy at the University of California, Berkeley. This paper was presented at the AAHE National Conference on Higher Education, March 1982, in Washington, D.C.

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Can Higher Education Be Equal and Excellent Too?

K. Patricia Cross

Twenty years ago, John Gardner asked, "Can we be equal and excellent too?" We are still struggling with the answer to that question. In the 1960s and '70s we concentrated on trying to bring about equality; it looks as though we are going to spend the 1980s and '90s concentrating on quality. Whether we can bring the two together remains to be seen.

In the climate of the 1980s, there is the temptation to correct the excesses of the 1960s and '70s with a violent swing of the pendulum in the opposite direction. There are some who, having concluded that we have given open access a good try, would close the door on access and turn now to the reinstatement of standards. That's only fair, they claim, since the proponents of access turned their backs on standards in the 1970s in a single-minded dedication to the cause of open access.

All of us are familiar with the litany of excesses that took place in the 1970s, most of it not directly related to equal access, but catching a spirit that valued acceptance and tolerance over standards and value judgments. Requirements disappeared from the curriculum; testing even for purposes of guidance and placement became a no-no; there was a hesitancy to enforce demands upon students, and inflated grades devalued the currency of college credit. In retrospect, I am convinced that the pendulum had to swing too far in order to accomplish the number one priority, which was to open the gates of colleges to all who wished to learn. The problem came when we lost sight of the purpose of access—which was not merely to permit students to enter colleges but to enable them to learn.

We need not make the choice between equality and quality; we can have both. Indeed, it might be said that there is no true equality until each student is offered the right to do his or her best. Sad to say, we have not been offering that right to either high-achieving or low-achieving students. Denial of the opportunity to take pride in one's accomplishments is a serious infringement on educational rights. And where standards have been compromised, students are denied the very basic human right to feel good about themselves and their accomplishments. I am convinced that we can return pride in achievement to education without compromising the gains that we have made with respect to access. But to do so will require major changes in the traditional practices of education—changes in our most basic premises about teaching and learning.

Change in administration

Education has adapted fairly well to change in administrative procedures. People who were frantically busy with change during the 1960s were college administrators and the administrative officers of federal and state agencies. Financial aid, admissions, recruitment, orientation, and counseling occur in the administrative offices of colleges. And there is evidence that the practices and procedures of these offices changed substantially throughout the 1960s. In 1970 when I conducted my first survey of community college programs, which bore the brunt of the new social priorities, I found that the overwhelming majority of community colleges had already devised special programs and procedures for helping students gain access to postsecondary education. Virtually no administrative office was doing things as they had done them in the 1950s. But very significantly, I found that the influx of poorly prepared students into colleges had made little impact on instructional programs up to 1970 (Cross 1976).

But in 1970 the tide began to shift. There was

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marked attention to teaching practices. Teaching methods changed perceptably as learning laboratories, competence-based education, self-paced learning, and media-assisted instruction began to appear on the scene, but there were also efforts made to improve traditional classroom teaching. Yet between 1970 and 1975, more than a thousand colleges and universities instituted new activities designed to help faculty members improve their teaching (Centra 1976).

I anticipate that pressures will continue to build for substantial improvement in the instructional practices of education. But once it is clear that teachers are doing their best in a system that is ill-suited to the new challenges, we will have to look to reform of basic educational structures. In the words of Robert McCabe (1978), president of Miami-Dade Community College, "Nothing can be more frustrating than for faculty to develop a well-conceived and economically feasible plan for learning, only to find that the management systems are not designed to accommodate it."

That has been largely the case with individualized learning, which, although it seems especially well suited to today's enormously diverse college population, is perpetually thwarted by such outmoded practices as semesters, credit-hour funding, and faculty-load formulas.

Based on false assumptions

Let us look for a moment at an educational practice that is so familiar to all of us that we rarely question its appropriateness in the new world that higher education has become. The semester, or any other time unit with fixed boundaries, makes some assumptions about learning that we know are false. It assumes that the time required for learning is the same for all people and for all subjects. That premise, which is the foundation upon which the present structure of education is built, is so blatantly untrue that we don't even bother to document with research our personal experiences.

As an undergraduate math major, it was very clear to me that I learned mathematics much more quickly than I learned history, and it was equally clear to me that I was not going to complete a semester of history with the same mastery of the subject matter as some of my fellow students. The imbalance was greatly exacerbated by the fact that because I was successful in mathematics, I was motivated and eager to spend out-of-class hours on it, whereas my progress in history was such that the history book spent most evenings and weekends in my school locker. The big plus for me in history came at the end of the semester when the used bookstore told me that my history book was worth more money that my math book because it was in better condition. Incidentally, now that I am free to set my own pace, I read history for pleasure—which suggests that my early distaste for history was not an innate or incurable affliction.

I am convinced that we can return pride in achievement to education without compromising the gains that we have made with respect to access.

We do know from research that the time people spend directly on the learning task is a critical variable in learning. We also know that motivation and success are intimately related. We are more highly motivated to do those things that we do well, and this creates an upward spiral in which we become ever more proficient in the areas of our success. Unfortunately, the downward spiral is more often experienced by many underprepared students in school related tasks. Research shows that low-achieving high school seniors are significantly more likely than high achievers to spend their time in non-school related activities (Cross 1971). Less time on task means lowered success, lowered reward, and therefore less time on school learning. This simple fact of life explains in large measure the consistent research findings that show that as students proceed through school, the gap between high achievers and low achievers widens.

There is a rule of thumb that says that the range of academic achievement in a given class of unselected students is roughly comparable to the grade level at which the measure is taken. For example, in the third grade most students will be reading at the third grade level—by definition. But we are quite likely to find some students reading at the

second grade and some at the fourth-grade level, making an effective span of three grade levels in student achievement. By the time students get to college, that gap has widened so much that it is not unusual to find a span of 10 to 12 years in the freshman class of an open-admissions college; some students will have fourth-grade reading abilities while others will be reading at the level of the average junior or senior in college. To expect any classroom teacher to deal effectively with that span of achievement under the constraints of group instruction and fixed time boundaries such as semesters, is totally unrealistic. It hasn't worked, and there is absolutely no reason to hope that it will work.

The ideal of individualization—new practices for new purposes

What to do? Most people have no quarrel with the ideal of individualization. They readily admit that if instruction could be geared to the level of each learner, and prescriptions could be designed to address individual academic weaknesses, learning would be greatly enhanced across the full range of student abilities. It is the practicality of individualization that stops people—especially those that live in the real world of fiscal austerity, Propositions 13 and 2½, and the slashing of the federal budget.

True, individualization has been adopted in many forms by teachers working with underprepared students, but they must be not only creative, but devious and dedicated as well, to operate individualized programs in an educational system totally geared to group instruction. It would make sense to give slower learners either more time or less credit if they have not completed the work by the end of the semester. But instead we indicate through D and F grades that the learning is incomplete—an approach that does no one any good. It does nothing to motivate the student or instill self-confidence; it passes students on to more advanced work without providing the necessary tools; and it compromises the integrity of education with future employers by turning out functional illiterates. To defend semesters on the grounds of efficiency and cost is to misunderstand the purpose of education—which is, quite simply, to help all students learn. Somehow, during the 1980s we are going to have to start with the purposes of education and design the practices to support those purposes.

I may be an incurable optimist, but I see some bright light at the end of the tunnel, and I believe that we are going to see some remarkable progress in the 1980s in devising practices appropriate to our new purposes.

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More Than A Definitional Problem

Darrel A. Clowes

There is an enormous concern today for the problems presented by underprepared students entering higher education, but a restricted vocabulary limits our ability to address them. New terms have been coined to describe underprepared students—high-risk, nontraditional, new students—and a series of terms has emerged to describe the programs that serve them.

John Roueche has been the Boswell of the movement to serve underprepared students and his use of terms is representative. In his early writings Roueche referred to remedial programs (1968); in his later writings (1977) he refers to developmental programs. A gradual transition in meaning is revealed through his works, but little clear differentiation is drawn in his or the general literature.

The vocabularly of this field has developed "like Topsey" to reflect needs of the moment, without systematic plan or definition. This lack of clarity is a problem: Because we use several terms interchangeably, we lose the ability to distinguish among distinctly different approaches to the underprepared student, and this failure to distinguish has led us to gloss over differences and obscure the uniqueness inherent in specific approaches.

The purpose of this paper is to describe each of the three dominant terms used in this field and propose more precise uses of them. This process of more carefully distinguishing among types of education for underprepared students should allow us to more clearly identify, communicate about, and evaluate precise intents and consequences of various approaches.

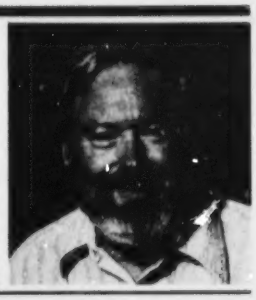
Remedial education. Remedial education is the term most commonly associated with the underprepared student. Remedial shares its root with remedy, meaning to heal, cure, or make whole. This curative connotation has the sense of education as a palliative which will "fix" the student or some weakness in the student.

Webster's New Collegiate Dictionary (1964) defines remedial as "concerned with the correction of faulty study habits and the raising of a pupil's general competence." In this sense remedial education denotes the activities correcting specific deficiencies in skill areas, improving a student's writing and mathematical skills, and addressing the general area of study skills. In its more restricted definitional use remedial education applies only to work in subjects taught at a more advanced level in college. The connotation of remedial education in this model is work with academically backward or less able students to bring them up to an acceptable range of competence. This is consistent with the traditional image of higher education as the province of the elite, where remediation carries serious negative overtones for the college mission.

Remedial education focuses on academic skills using a medical model. Specific weaknesses are diagnosed, appropriate treatments are prescribed, and the patient is evaluated to determine the effect of the treatment. If the treatment is inadequate, then the prescription is revised and the process is repeated.

Compensatory education. The term compensatory education was introduced following World War II and is particularly associated with the Elementary and Secondary Education Act of 1965, and the resulting Office of Compensatory Education within the Office of Education (Chazan 1973). The term is defined by Frost and Rowland as "those efforts designed to make up for the debilitating consequences of discrimination and proverty (1971, p. vii). Compensatory education became associated with efforts

Clearer definition of terms could improve our program planning, our evaluation, and ultimately our effect upon the students we strive to serve.



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toward "improving cognitive achievement deficits which are primarily environmentally induced" (Ntuk-Iden 1978, p. 45).

In the dictionary sense compensatory is a noun form of the verb "to compensate" meaning "to make an appropriate and usually counter balancing payment to neutralize the effect of." In practical terms compensatory education implies offsetting a home environment unsupportive of educational attainment.

Compensatory education in higher education faces a hostile environment. Because basic attitudes and preferences are well established by the college years, there is little hope and limited evidence that direct intervention at this late stage is successful.

Compensatory education includes remediation activities such as preparatory and supplementary work in writing and computational skills, attention to study skill development, and work on reading skills as part of a program to provide an enriching experience beyond the academic environment to counter balance a nonsupportive home environment.

Because the model focuses on extracurricular activities, the residential college offers some opportunity to develop strengths that are brought to the institution and represents whatever hope might exist for the compensatory model in higher education. Perhaps the success of traditionally black colleges can best be explained as an application of a compensatory model where the college assumes a strong *in loco parentis* role, offers remedial programs, and provides strong support for students' academic endeavors. However, for most students, but especially for nonresidential and commuting students at public community colleges, the compensatory model holds little or no promise.

Developmental education. The term developmental education has emerged recently as part of efforts to merge the activities of academic and student affairs personnel to support student learning. The mood of the 1970s was congenial to the development of programs that stressed the value and worth of each individual, saw individual differences not as negatives but as unique possibilities, and focused upon the notion of continuing growth and change for the individual. These growth-oriented programs contrast with the more static remedial and compensatory programs, designed to bring students "up" to an arbitrary performance level.

Developmental education has its genesis in the work of human development theorists who articulated a concept of development meaning "to evolve the possibilities of" or "to promote the growth of" (*Webster's New Collegiate Dictionary* 1964). Miller and Prince define this model of education as "the application of human development concepts in postsecondary settings so that everyone involved can master increasingly complex developmental tasks, achieve self-direction, and become interdependent" (1976, p. 3).

This concept is further expanded by David Drew when he describes developmental education as a process where

> *during the undergraduate years the student also develops and refines his philosophy and value systems, acquires interests which may enrich both his leisure and his work life, and makes decisions about relationships between commitment to work and commitment to family roles (1977, p. vii).*

Here developmental education is defined as a process through which students must go, extending beyond academic subjects into basic decisions about life direction and purpose. The connotation that all students must proceed through this developmental process establishes developmental education as appropriate for all, as distinct from remedial or compensatory education which are appropriate only for the unfortunate few. Developmental education emphasizes a series of major life choices and processes. These choices and processes are expedited by academic skills but also are dependent upon interpersonal skills and life coping skills, which are equally the province of the academic and nonacademic student.

The student development model attempts to bring the student-support and academic functions of a college together to assist students in becoming fully functioning adults.

It is important to distinguish among these various approaches to dealing with the underprepared student. There are at least three distinctly different approaches currently in use in two- and four-year institutions. Yet we tend to lump all these activities under the same imprecise terms and to

confuse the situation by treating these different approaches as if they were one. If we can distinguish clearly among at least these three elements in our approaches to the underprepared student, then we will be better able to articulate the precise goals for these programs and to be clearer about the expectations we hold for our students. There has been a constant but unanswered plea for evaluation of remedial/compensatory/developmental programs. Clearer definition of terms could improve our program planning, our evaluation, and ultimately our effect upon the students we strive to serve.

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Quality and the Open-Door Community College

Robert H. McCabe

Clearly we are in a period of transition in American higher education. For more than 30 years the driving concept of the community college has been expanding access. The opening of opportunity to new populations has been surprisingly successful. However, the access revolution has also been a major contributor to the decline of standards. The community colleges have too often been more successful at enrolling new populations than in serving them effectively. The evolutionary process now underway in education is reflective of a pervasive public attitude that places major emphasis on quality, rather than access. According to the Southern Regional Education Board, "An imperative need confronts the schools and higher education to work together to improve the quality of education at all levels. Current movements to test pupils at various grades, to test prospective teachers, and to require exit examinations as a condition for college graduation reflect a growing public belief that educational quality is unacceptably low."

Many who are concerned with improving the quality of postsecondary education offer a simplistic solution to the problem, and that is to reverse the gains in access and limit admission to those demonstrating high ability on completion of high school. While raising admission criteria might be appropriate for certain universities, such a policy applied to all higher education would have a devastating, negative impact on this country. The American economy needs more, rather than fewer, well-educated individuals. I am also convinced that limiting access would be a clear misreading of the mood of the American people. While there is substantial disillusionment with the efficacy of some social programs of earlier decades, including those in education, I believe this disillusionment is with the programs themselves, and not with the great ideals of this nation, nor with the basic tenet of providing opportunity for each individual to fulfill his or her potential.

Redesigning the postsecondary system

It is time to carefully examine the current environment and to realistically redesign the postsecondary system, especially the community college, to become a positive force in improving our society. The combined effect of the changing nature of work in America, along with a severe decline in communications skills of youth, has resulted in a societal dilemma that is so serious as to fairly be called a crisis. Quite simply, the increased requirement for academic skills for employability, combined with the decline in those skills among young Americans, leaves literally millions of individuals inadequately prepared and unable to gain employment, and thus unable to sustain themselves as productive members of the society.

Perhaps the major contributor to the change in the nature of work in America has been the dramatic developments in information technology. These developments were completely misread by many in education, who believed that reading would become less important as other means of communication evolved. In fact, what has happened is that communications technology is becoming a part of everyone's work and home life, and is producing enormous amounts of information that must be read and interpreted. In 1950 only 17 percent of all jobs in America involved information processing; by 1979 this had increased to 54 percent. Prior to World War II, nearly 80 percent of the jobs in America were classified as unskilled, but by 1979 this figure had declined to 15 percent. Vir-

Robert H. McCabe

tually every job now requires effective communication skills.

At the same time that the need for strong academic skills for survival has increased dramatically, the level of such skills attained by Americans has evidenced substantial decline. The National Assessment of Educational Progress reports that during the 1970s there was a 20 percent decline in the number of 17-year-olds able to satisfactorily interpret reading matter; scores on College Board examinations have declined for 14 consecutive years, bottoming out in 1981; and there has been a one and a half school-year decline in standardized test scores of American high school seniors over the last six years, compounded by a further one-year difference for students in urban America. At Miami-Dade Community College, two-thirds of all entering students tested are deficient in reading, writing, or mathematics, while more than 90 percent of the blacks tested are deficient in one skill and more than two-thirds deficient in all three of these basic skills areas. Black students still consistently test in the lower half of the academic scores at a rate that is double their percentage of the population. Further, 20 percent of white Americans and 36 percent of black Americans are not completing high school. Ernest Boyer and Fred Hechinger, in *Higher Learning in the Nation's Service*, sum up the situation well:

> *We are underscoring the fact that the workplace is changing dramatically, that traditional notions about pre-work preparation are becoming obsolete, and that more education will be required to meet the nation's diverse social and economic needs.*
>
> *It is our conclusion that, from now on, almost all young people will at some time in their lives need some form of postsecondary education if they are to remain economically productive and socially functional in a world whose tasks and tools are becoming increasingly complex.*

A vivid illustration of our current circumstance is evident in my own community. With an economy based on international tourism, trade, and banking, some employers have paid bounties to employees who recruit a qualified new employee—that is, someone with good communications skills and who can effectively process information. At the same time, in an unreconstructed and hopeless Liberty City, thousands of unemployed young people hang out on street corners. The difference between remaining unemployed and being recruited for employment is based to a significant degree on the level of personal skill in reading, writing, and mathematics. Thus, we are learning that the most important academic skills have now become the most important occupational skills. How better could education help our country than by seeing to it that no new legions are added to those street corners? Nothing could have more impact on improving our deprived communities than to improve the level of literacy, thus opening up opportunities for existing jobs.

A broad range of student abilities and goals does exist . . . and recognition of this is a centerpiece of the new community college planning.

Helping these individuals into good employment would provide them with the economic resources to help improve their neighborhoods.

What, then, should be the role of the new American community college? Most importantly, it must maintain its essential commitment to the open door, as it now stands as the pivotal institution in salvaging opportunity for the large numbers of Americans whose academic and occupational skills have not prepared them to participate in society nor achieve any measure of success. There could be no more vital or challenging responsibility. At the same time, the community college must place emphasis on achievement, and maintain high expectations for program completion—in other words, the goal is excellence for everyone. Ultimately, no one benefits when individuals simply pass through the program and become certified while lacking the competencies indicated by those certifications.

Dealing with the dilemma of lower skills of entering students and higher expectations for completion will be very difficult and, in many cases, will call for wide-scale reform of the educational program. Our institutions must address these problems with a dedicated spirit toward new directions for the community college, and with full understanding of the great importance of our work. Throughout the country, there is evidence that action toward these

There is little prospect that a standard application of educational service will move a student who is four or five years behind in academic skills to the necessary level within a standard period of time.

new directions is already developing. Some key factors in this movement are: attention to individual differences, varying time for instruction, use of communications technology, economic and institutional planning, holding to standards, supporting superior students, working with high schools, and securing legislative support.

Individual differences. The tremendous increase in the spread of students' abilities and goals has been one of the factors that caused the breakdown in the open-flow model. The idea that students should "have an opportunity to fail"—that is, be allowed to choose any courses they wished at their own risk—simply did not work. A spread of abilities resulted in classrooms that often precluded the establishment of an effective learning environment and did not afford either students or faculty the opportunity to succeed. Perhaps more than any other factor, this contributed to a decline in faculty morale and to the serious questioning of the efficacy of the system. Faculty commitment is essential to effective education, and must be regained.

A broad range of student abilities and goals does exist, however, and recognition of this is a centerpiece in the new community college planning. Programs must be organized to provide direction and special assistance as required, in order that each student have the best opportunity to achieve. There should be a controlled student flow, carefully constructed so that students proceed through the program based on their competencies and progress. In a more directive system, students with deficiencies are required to take necessary developmental work before proceeding to programs where the lack of skill could cause failure. Such a system also ensures that students are assisted in selecting courses and in maintaining reasonable loads. In addition, the curriculum should be aligned so that students who cannot complete a program will have gained skills and competencies that are useful in life. Given this type of directive system, faculty should be able to provide effective instruction within a narrower range of academic competence, thus increasing both faculty and student opportunity for success.

Variable time. Over a period of time, a system had evolved in which institutions became embarrassed when students were unable to complete programs in a standard amount of time, or when they required developmental courses or other forms of special assistance. As a reflection of new attitudes in higher education, students are now informed at the outset that if they begin with deficiencies in academic skills, they must take longer to be successful. There is little prospect that a standard application of educational service will move a student who is four or five years behind in academic skills to the necessary level within a standard period of time. It is essential that programs be organized to allow students variable time for achievement of a program, a course, or even a unit within a course.

There must exist not only developmental courses, but a system that will accommodate appropriate reduction in student load (one of the few procedures that show documented results). Methods must be established for additional support service coordinated with course work. Further, there should be continued emphasis on the development of faculty skills necessary for effective individualization of instruction. Reduction of the academic range in classes will not eliminate individual differences. The thrust of the program remains assistance to individuals. College credits must be viewed as currency, and institutions must not award credits until course standards have been met. Thus, the widespread practice of granting additional credits when students take longer to complete courses, or granting credits easily, must be discontinued.

With new techniques and discoveries in the teaching/learning process over the last several decades, the tools are now available to fully develop variable-time programs. In some states, revision of statutes or rules related to finance will be needed to permit broad utilization of variable-time practices.

Communications technology. It is quite apparent that there can be no short-term expectation for substantial increases in funding for community colleges. Thus, individualization must be achieved within acceptable cost parameters and, without doubt, application of communications technology offers important prospects for attaining this goal. The economies of communications technology continue to improve, while the capability rapidly expands and cost of hardware declines. The key consideration in utilization of this technology is that responses and advice for students, which are depen-

dent on many factors, can and should be developed with great care. Since the results will be used in many similar circumstances, the development cost may be shared, or amortized, over many students. Thus, more time and care can go into the preparation of responses, with cost-effectiveness maintained, than would be possible with responses designed for a single student.

It also appears that, after years of resistance, faculty are now ready to use this technology. Computers and other communications devices have become an integral part of all of our lives. It would be most unusual not to use them in the field of education, which is a combination of communications and human interaction. A recent study of Florida community college faculty showed that the highest interest in new instructional techniques—49 percent—was in the application of computers.

Economic and institutional planning. The changes that must take place in the educational program in order to provide variable-time programs, to recognize individual differences, and to integrate the use of communications technology clearly indicate the need for a different configuration of service from the traditional institution. Institutions cannot regard all of the new elements as merely additions to the standard format; this has long been a stumbling block to advances in education. Rather, they must think in terms of reconfiguration of costs, based upon substantial change and reorganization of the educational program. Only this type of planning will result in meaningful change and provide any real opportunity to bring about effective reform in our current dilemma.

The current diversity of the students, their lack of academic skills, and the requirement for greater competency for graduates, demand a full college reform.

There must be an overall institutional plan and commitment that involves careful ordering of educational experiences, and is more directive, controlled, and supportive of the students. Each department should fulfill its unique role and develop its programs in support of the whole. There is little prospect for success, even with the excellent work that might develop in individual departments, if it is not part of an integrated system. The current diversity of the students, their lack of academic skills, and the requirement for greater competency for graduates, demand a full college reform.

Holding to standards. It is clear that standards have declined in American education at all levels. The open-door community college, however, receiving less-prepared high school graduates and committed to help all, has been especially vulnerable. It is most important that we raise student expectations, and that we award degrees and certificates on the basis of demonstrated competencies, in order that they remain meaningful. In the future, most individuals will require some postsecondary education, yet society is demanding that funds not be expended where there is little hope of achieving a successful result. I believe a student's first year at the community college will become the deciding point as to whether the public will continue to pay for further education. The college should assume responsibility for assisting individuals to succeed, and an ordered curriculum should be instituted to deal with reading, writing, and computational deficiencies first, so that all students benefit from attendance. However, the college must also be prepared to suspend students if there is no evidence of reasonable progress.

Superior students. With the goal of an increased focus on achievement in the community college, it is important that these institutions not become places for only those with poor academic skills. Yet, overwhelmed by the problems of the underprepared and the task of providing support for them, the community college has, over a period of time, neglected superior students. These students represent one more aspect of our total diversity, and they can be well served in community colleges. The superior student is an important asset, not only to other students, but also in building and maintaining a positive public attitude toward the community colleges. Many institutions are implementing creative new programs for these students, and a number of community colleges now enroll a third of the top 10 percent of high school graduates in their area.

High school program. Seventy-five percent of high school graduates enroll in postsecondary institutions within seven years of high school graduation and, in some areas, more than half eventually enroll in community colleges. High schools must recognize that most students require preparation for postsecondary enrollment, and that all need a foundation of strong academic skills in preparation for employment and for a life of productive participation in our society. For large numbers of Americans the community college level is too late for beginning improvement of academic deficiencies. Colleges and high schools should work closely to bring about necessary curricular change in the secondary and elementary systems.

Legislative support. Community colleges need help and understanding from state legislatures. In most states, the credit-hour is not only the currency of the institution, but also the basis upon which funds are derived. Few institutions will be encouraged to implement necessary suspension processes, provide additional not-for-credit services, award credits judiciously, and increase performance expectations, if credits and enrollment remain the critical factors in funding. Legislatures must help by detaching the community colleges from the stifling strangulation of enrollment-driven funding formulas.

Our institutions are faced with a great challenge and a great opportunity to help this nation. The community colleges are demonstrating commitment in response to this challenge, and have already begun to institute needed reforms with the combined goal of providing both equity and excellence. This is the start of a vital new community college movement in America.

The Miami-Dade Breakthrough

K. Patricia Cross

At least one college, I believe, is on the verge of achieving a breakthrough in pursuing quality in education without sacrificing open access. If this breakthrough had occurred in a small college located in a stable and affluent community, I might call it a happy situation for the college but I would hardly call it a breakthrough.

The fact is that the program I refer to is under development at the fifth largest institution of higher education in the nation—Miami-Dade Community College—a huge, urban, open-admissions institution set in the heart of one of America's most rapidly changing cities. Miami-Dade has a highly diverse student body that is 40 percent white, 40 percent Hispanic, and 17 percent black. The sheer size of the college, with a credit enrollment of 44,000 students, should make it an unlikely prospect for institution-wide reform, but once the innovators at Miami-Dade set about defining the problems and seeking solutions, one thing led to another, and they now have in place a program that is so far-reaching in its way of dealing with many of today's problems that I can only describe it as a breakthrough.

This is not to say that Miami-Dade has unleashed a panacea that will solve all the problems of urban open-admissions education; I assure you there is plenty of room for the rest of us to exercise our creative problem-solving abilities. But Miami-Dade has opened the door to a glimpse of the future that gives reason for optimism. Although Miami-Dade happens to be a two-year community college, the program they have devised is equally appropriate for four-year institutions, and as a matter of fact addresses, from a perspective of 20 years experience with open-admissions, some of the problems that four-year colleges are just now beginning to experience.

Miami-Dade's program is a comprehensive approach that involves curricular reform, the development of a management system that can support instructional innovation, and the redefinition of faculty roles. Needless to say, it also requires the best problem-solving talents of faculty, administrators, the higher education community in Florida, and state government.

The intelligent use of technology

The rock upon which the program rests is the recognition of the value and importance of the individual, and in an institution the size of Miami-Dade, the intelligent use of technology is the key that makes individualization possible. Miami-Dade's program began in 1975 with the reform of general education. The development of a curriculum that a majority of faculty can agree that all students should take is in itself a formidable undertaking not recommended for the faint-of-heart or the short-of-patience. The process of drafting a document, sending it to faculty for reaction, negotiating changes, redrafting the document, hashing it over in committees of the faculty took three long years.

I was privileged to be an observer of the process in those years, and I confess that there were times when I agreed with the staff member who labeled the whole procedure "beyond democracy." The fascinating thing about the review of the general education requirements, however, was the number of questions it raised.

If every student were to be required to take five general education courses, what was the common core of knowledge that every degree-seeking student should have, whether planning to be an automotive mechanic or a college professor? If every student is expected to *pass* the general educa-

tion requirements, how could the academic integrity of the program be assured in the face of rising numbers of students who lack the basic skills for success in college-level courses? I won't go into the content of the five general education core courses; suffice it to say that they are being very carefully designed, with the use of media where appropriate, and that they are not watered-down representations of the academic departments that had enough political clout and savvy to win the usual battles over distribution requirements. They are truly interdisciplinary courses designed to be useful in all walks of life, with clearly defined competencies that students passing the courses can be expected to have. (See Lukenbill and McCabe 1978 for a full description of the general education program.)

Raised expectations, plus the provision of opportunities for experiencing success at a task that is difficult enough to generate a feeling of accomplishment, is the prescription I would make for most basic-skills students.

One example, however, will illustrate some of the principles that have been applied to course development. The physical education requirement can be met through either a physical education activities course—tennis, hockey, or whatever—or a health improvement course. The super-popular health improvement course begins with a physical stress test, followed by an individualized computerized letter to each student giving test results, assessing strengths and weaknesses, and preparing the student for the course which assumes that the individual must accept responsibility for improving his or her own health. As the saying goes, "Teaching is easy once you have their attention." And relating lessons directly and personally to individual needs is a time-honored way of getting attention.

The health-improvement course makes a good illustration because it embodies the principles of Miami-Dade's comprehensive plan of reform, which is assessment, followed by full information to the student, followed by prescription for what can be done about it and suggestions about where to get help. One of the features I find especially appealing about the Miami-Dade program is that it places responsibility for improvement upon students, not in a vague way, but by telling them rather directly what might be done, providing the necessary support systems, and then letting students know unequivocally that the college has the expectation that the student is capable of succeeding.

Expecting success

One of the characteristics that stands out most clearly in my own research on underprepared students is the need for explicit framing of the problem accompanied by confidence in the student to accomplish the task (Cross 1971; 1976). Too often in our dealings with low-achievers, we have lowered our expectations, admitting to students as well as to ourselves that we doubt that the student can succeed. The experience of not succeeding in school is so pervasive for basic-skills students that lowered expectations is the last thing they need. Raised expectations, plus the provision of opportunities for experiencing success at a task that is difficult enough to generate a feeling of accomplishment, is the prescription I would make for most basic-skills students.

That is the prescription made in Miami-Dade's new program. When students enter Miami-Dade, their basic level of academic preparation is assessed on tests of reading, writing, and mathematics. The college then assumes the responsibility for providing an appropriate prescription for success for that student. If the student lacks the basic skills to succeed in the required general education core courses, he or she must first register for the appropriate skill-building programs.

Admittedly, there is nothing very different in that step from the placement tests that we all used to take in college, but the concept of course placement disappeared for awhile under the notion that every student had the "right to fail." Most basic-skills students, however, are old hands at failure; what they need is the opportunity to succeed.

Once the Miami-Dade student is placed at a level that offers realistic opportunity for success, the Academic Alert and Advisement system goes into

Students and faculty appear well satisfied with the system so far, with 93 percent of the students and 88 percent of the faculty recommending its continuation.

operation. This is a computerized system, containing information about the student—test scores, work schedule, academic load, native language, age, etc.—plus information from instructors about the student's progress in class. Seven weeks into the term, all instructors are asked to provide only two pieces of information: Is performance satisfactory or unsatisfactory and has attendance been satisfactory? That is not a very onerous task and yet the mere requirement forces instructors to get some sense of the progress of each student in his or her class before it is too late to do something about it.

Each of Miami-Dade's 40,000 regularly enrolled students gets an individualized letter assessing progress in each course and making suggestions that are consistent with that student's situation—congratulations if the progress is good, suggestions to see the instructor or an advisor (whose name and phone number appear in the letter) if progress is in doubt, caution that the student is carrying too heavy a load given low test scores and weak performance, information about next semester's registration, etc. Overall, there are 150 different messages programmed into the computer and when various combinations of messages are considered, it is possible to generate almost 27,000 unique letters if student information is available. Lists of potential student load also go to the support services of the college so that basic skills laboratories, academic advisors, and others can plan accordingly.

Students and faculty appear well satisfied with the system so far, with 93 percent of the students and 88 percent of the faculty recommending its continuation. More important, perhaps, are early data demonstrating the potential effectiveness of the plan. In the three years since the system has been in operation, the percentage of students performing satisfactorily at midterm has increased from 40 percent to 52 percent, and 85 percent of the students who received warnings in their academic alert letters at midterm are completing the semester satisfactorily. Furthermore, there has been a significant improvement in the grades of students with poor academic records since the system has been implemented and among students taking advantage of the advisory and support services.

For its part, the college has demonstrated its desire to help students succeed. It must be obvious to students that the college is working hard to diagnose problems and provide maximum information about student progress, while building support systems with faculty and advisors who are able and willing to help. It must also be clear that standards are in force and that the burden for performance rests with students. In two and a half years, over 8,000 students have been suspended from Miami-Dade but, as students understand that the college is serious about enforcement of standards, the suspension rate has started to decline. The rate of suspension has declined for all ethnic minorities, but the 44 percent decline in the number of black students suspended has been especially striking.

Enforcing standards

The enforcement of standards and the accompanying more effective monitoring of student learning performance, is handled via another special feature of the Miami-Dade program, the Standards of Academic Progress Program (SOAP). The Standards consist of a successively severe set of actions that may be taken by the college to press the student into assuming responsibility. The first step is academic warning, which goes further than the usual ominous words on paper by requiring the student to participate in intervention courses on study skills, career planning, time management, etc. Students are also required to reduce their load—which incidentally, Miami-Dade is finding a highly significant variable in the performance of basic skills students. The second level in the Standards of Academic Progress program is academic probation, which carries further requirements for reduced load and special help. If the student is still not making satisfactory progress by the time 30 credits have been attempted, he is suspended from the college for a term. The ultimate action is dismissal, which carries the message that the college believes that the student is not going to succeed at Miami-Dade and further public investment is unjustified.

I think, and I'm fairly certain that Miami-Dade would agree, that they have just barely scratched the surface with their trail-blazing use of computers to get individualized information into the hands of the students. Smaller colleges may be able to come up with more personalized forms of individualization. In one sense, the amazing thing about the Miami-

Dade program is that they are able to individualize at all.

One of the faculty planners figured out that if they were to use advisors instead of computers, each advisor would have to devote all of his or her working hours for 31 days to seeing students at 15-minute intervals, with no margin for error in scheduling or student failure to keep appointments (Anandam 1981).

The reason that I say that Miami-Dade has just barely scratched the surface in what needs to be done is that their individualization is at present largely concerned with providing diagnosis, feedback, and prescription to students about their academic progress. That is certainly not inconsequential, but eventually we will have to find ways to individualize the *processes* of education.

Miami-Dade is currently working under a grant from the Fund for the Improvement of Postsecondary Education to crack the rigidity of semesters and other fixed time boundaries. A solution will no doubt involve reform of funding formulas and negotiations with forces outside the college. But already President McCabe has negotiated an agreement with state fiscal offices to fund remedial work on the basis of clock hours instead of credit hours. The implications are powerful. In the first place, extra assistance *can* be provided to those students needing help. If, for example, the mathematics department finds some students having difficulty with certain concepts or aspects of the work, departmental faculty may devise an appropriate and workable support system, apply for recognition of it, and receive funding for the hours spent with students needing help.

Among other things, the promise of funding encourages faculty to take an interest in learning problems. Learning laboratories can also be funded on the more realistic notion that the hours a student actually spends on the learning task are the relevant educational units. Finally, funding remedial activities on the basis of clock hours is consistent with the new emphasis on standards since it removes any motivation to convert all kinds of learning activities into credit courses in order to receive funding.

I understand your skepticism—"Fine, but won't such programs cost money?" Yes, of course, but part of the secret lies with the reallocation of expensive human time. It is estimated, for example, that Miami-Dade is saving $100,000 a year now on a new computerized method for certifying that graduation requirements have been met—a system, incidentally, that also removes the drudgery and error present when faculty advisors try to keep up with student changes in programs and changes in prerequisites for admission to upper-division institutions.

A bright vision of the future

Although it must be obvious by this time that I think what Miami-Dade is doing is terribly significant, my point in relating it to you is that it represents a bright vision of the future that is all too rare in this apparently bleak decade. Most of us complain about the quality of academic preparation of entering freshmen; we sincerely want to be able to hold the high expectations that generate pride for both faculty and students; and we bewail the lack of funding that prevents instituting reform, but I draw inspiration and encouragement from this example of what is possible in a large, urban, open-door institution with a heterogeneous and rapidly changing student body.

The success formula, as I have watched it over the years at Miami-Dade, seems to be a constructive and creative approach to solving problems that pervades the entire institution. Once the reform bandwagon is rolling at the rate it is now at Miami-Dade, each problem solved opens a new challenge or suggests a new application with the accompanying sense of excitement and stimulation to all who are a part of it.

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Underprepared Students at Public Research Universities

Martin A. Trow

The "underprepared student" is a problem for systems of higher education that place strong emphasis on ease of access *and* try to maintain certain academic standards. It is not a problem, say, in the British universities, whose students enter only after passing at least two advanced-level examinations in their subjects of specialization; such students are, by definition, "prepared" for university-level work. On the other hand, we do not hear much about the underprepared students in most community colleges, which are designed to be open-door institutions and pride themselves on teaching their students at whatever the students' level of preparation may be. Students in community colleges may be underprepared for their academic transfer courses, but not for the community college itself.

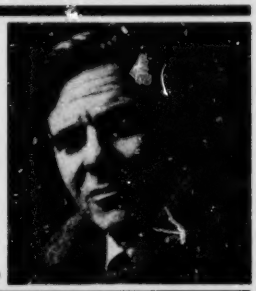
The stress created by a commitment both to broad access and to academic standards is a peculiarly American problem, and among American institutions it is especially acute in universities that by tradition and necessity have been relatively open to high school graduates, but whose research-oriented faculties and graduate schools create and sustain standards for academic achievement that are often at odds with their relaxed standards for admission.

Where universities rest on a firm foundation of elite and rigorous academic high schools like the gymnasiums, lycees, and the British grammar schools, or where institutions can be highly selective, such as the leading private colleges and universities in the United States today, the problems of underpreparation do not arise as a serious issue. But that has not been the case for most American colleges and universities for most of our history.

Much of American higher education was established before a system of public high schools was created. Indeed it was not until after the Civil War that there were many public high schools outside the big cities of the Northeast. Thirty years after that war ended, in 1895, only two out of five students admitted to American colleges were drawn from public high schools. In that same year only one in five came from the private preparatory schools, outgrowths of the old academies and concentrated on the eastern seaboard. But the hundreds of modest state and denominational colleges that sprang up between the Revolutionary War and the Civil War had to find some other way besides academies and high schools to bridge the gap between the primary schools and their own advanced classes. What many did was to create preparatory departments—a year or more during which time the young, often very young, entering student was actually in residence but not enrolled in the college proper, or doing work for the college's degree. The absence of a national system of high schools, and the uncontrolled creation of public and private colleges and universities, created the need for what we now call "remedial education" in the form of a preparatory department in almost every college in the country.

> *Insisting upon erecting colleges that neither need nor intelligence justified, college governing boards [before the Civil War] often had the choice of giving up or of taking any student who came along and starting him at whatever point his ignorance required. The result was that a college might not get around to a graduating class until it had been in operation for as long as eight years; in the meantime it had become the classical academy as well as the college for the district that it served (Rudolph 1962, p. 282).*

The practice of establishing preparatory departments, observes Frederick Rudolph, "has been



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something of a secret from history, but the colleges and universities knew what they were doing. They were laying their hands on every young man and woman they possibly could before their competitors did" (1977, p. 160). So remedial education, then as now, was linked to the market for students, as well as to academic standards. In 1870 only 26 colleges in the country, 23 of them in the Northeast, were not operating preparatory departments. And as late as 1895, 40 percent of all the students admitted to the country's colleges and universities were being admitted from the college preparatory departments of the institutions themselves (Rudolph 1977, p. 158).

With students of different ages and origins entering college from all sorts of backgrounds and kinds of preparation, it has been difficult to set any common standards for entry. As a result, in most public universities the real standards have been for the degree, rather than for entry. In this century, after the public high school had replaced college preparatory departments, in institutions that by law or custom have been required to accept all high school graduates, the freshman year has been viewed in two ways. It has been a year for screening out those who are simply not able to do college-level work—the notorious "slaughter of the innocents." For those going to stay in college, it has been a year for remedying the academic deficiencies they brought with them from high school.

If the problem of the underprepared student is a perennial one for American higher education, why is it that we seem to be especially concerned about the issue just now?

American colleges are no strangers to underprepared students or remedial instruction. And today our problems, and indeed many of our responses, are remarkably similar to those of the 19th century college. We share with our academic forebears a powerful democratic ethos, weak secondary education, the pressure of the market felt through enrollment-driven budgets, and the absence of any central agency for setting or enforcing high school curricula or standards for college entry. Today, as in the past, all of these and other forces are bringing to our public colleges and universities many students who are not, on entry, prepared to do work at a standard which those institutions define as "college level."

If the problem of the underprepared student is a perennial one for American higher education, why is it that we seem to be especially concerned about the issue just now? I think the answer lies both in a set of realities and in a cluster of apprehensions. The realities we know. There is first the decline in basic skills as measured by the SAT, achievement tests, and the National Assessment of Educational Progress, among others. Between 1968 and 1980, mean SAT scores of college-bound seniors nationally fell over 40 points on the verbal test and 26 points on the math.

The decline in the scores of the selected population eligible for entry to the University of California—the top 12½ percent of California high school graduates—has been even sharper than the national averages. "Between 1972 and 1979 UC entering freshmen's verbal scores declined 43 points and math scores 18 points. . . ." Between 1968 and 1979 the scores on the English composition test have declined 51 points and mathematics achievement scores 56 points. In support of the evidence of the tests, larger numbers of entering freshmen on all UC campuses now need help with writing skills than five years ago, "and there is some evidence to indicate that the criteria for selecting students for [the remedial courses] may have changed over the years, which means that these numbers may be a conservative estimate of need" (*Report to the Policy Committee* 1981). The faculty who teach freshmen at the University of California agree almost unanimously that students on the whole are less well prepared for college work than they were a decade ago, even when they have taken the college preparatory courses.

Causes of underpreparation

But the present concern among faculty and administrators about the preparation for college work among undergraduates arises as much out of apprehensions regarding the future as it does out of

the experience of the present and immediate past. And these apprehensions are linked to notions about the causes of the underpreparation of students, and to the sense that these forces and trends are not for the most part responsive to actions by America's institutions of higher education. Among the perceived causes are some that are linked to characteristics of the students and some that arise out of characteristics of the schools.

The gravest apprehension among academics is with the quality and future of the public high school. The problem has many dimensions, but perhaps the most critical is the quality and morale of the teaching profession itself. Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, observed recently, "The teaching profession is caught in a vicious cycle, spiraling downward. Rewards are few, morale is low, the best teachers are bailing out, and the supply of good recruits is drying up" (1982, p. 7). Myron Atkin, dean of the Graduate School of Education at Stanford, puts it even more bluntly: "The intellectual ability of those [college freshmen] who intend to teach, as measured by standardized tests, is markedly lower than that of college majors in every other field except ethnic studies"(1981, p. 91). Evidence for the marked decline in the quality of those entering teaching can be found in SAT scores. From 1972 to 1980, SAT verbal scores for college-bound seniors planning to major in education dropped from 418 to 339, a loss of 79 points, while SAT math scores in that population dropped 31 points, from 449 to 418. This is a much steeper decline than the national average for the SAT over the same period, which dropped 21 points on the verbal and 15 on the math tests (Sykes 1981, p. 1).

A 339 average on the SAT verbal, a 418 on the math, are figures to cause anxiety and indeed despair in anyone who reflects on them and on their implications for the primary and secondary schools. The negative selection into teaching that these figures reflect is, sad to say, a long-standing phenomenon in this country. A paper by Henry Chauncey written 30 years ago on extensive studies done with national samples by the Educational Testing Service and others, reported that students who majored in education scored lowest on comprehensive tests of verbal and mathematical competence as compared with majors in almost every other field (1952, p. 75).

The forces and trends that were visible 15, 20, and 30 years ago are still at work, and if anything are sharper and more pronounced. Fifteen years ago, I observed that

> *The lower incomes of teachers, as compared with incomes of school administrators, of men who leave education, and of most other occupations requiring a comparable amount of education, account for much of this unfortunate pattern of recruitment and retention of male teachers. Moreover, the relatively low status of teaching below the college level, which is both a cause and a consequence of the low salaries, also helps to explain why teaching attracts and holds too few of the most able (Trow 1966, p. 103).*

Ironically, the growth of mass higher education, and the increased opportunities for women and minority members over the past two decades, has further weakened the teaching profession by draining off able people from groups that formerly saw in teaching one of the few easily accessible professions.

Expecting the schools to do more—with less

Reflecting on the evidence available 15 years ago, I concluded rather pessimistically that "no matter how teacher education and secondary school curricula are reformed to strengthen the college preparatory function of the high schools, a substantial part of the actual teaching itself will be carried on by relatively poorly paid, low status, and academically less able people" (1966, p. 105).

That was written at a time when salaries for teachers and per capita expenditures for education were rising, when LBJ's Great Society and his War on Poverty were injecting substantial amounts of federal funds into the schools for the first time, and when the schools were accepting increasingly heavy responsibilities for combatting the effects of racial discrimination, class inequality, family instability, use of drugs, delinquent subcultures, and the tyranny of television. The schools still carry those burdens in a time of declining resources, worse (and more dangerous) conditions in the schools, and a growing gap between the salaries of teachers and of other comparably educated professionals.

The decline in the overall quality of our teach-

All else, all other troubles in the schools, are secondary to the quality and morale of the teaching staff.

ing profession cannot be reversed by pointing to its grave consequences. We have been doing that for some time without apparent results. And in our search for remedies, it may be the beginning of wisdom to accept that our teachers are, on average, as they are, and are likely to be as they are for as far ahead as we can see.

All else, all other troubles in the schools, are secondary to the quality and morale of the teaching staff. When we in higher education look at the schools, we see with a mixture of anxiety and compassion a group of aging men and women (the average age of teachers in San Francisco high schools is 55!), ill-paid and unrespected, the burden of whose work, physical and emotional, is of quite a different order than is the daily experience of the university teacher. This beleaguered work force, treated as employees rather than as professionals, and increasingly (especially its younger members) without security in their jobs or careers, clings to a union structure that further constricts opportunities for creative institutional responses; its contracts prohibit extracurricular activities such as evening meetings with parents that many principals see as crucial in involving parents in the education of their children.

I am not here assigning blame. The roots of the problems of our public schools go deep into our national history and into the character of its institutions; they are rooted in the very kind of society we are and in the enormous expectations we place on the schools to solve our social and racial problems; to achieve equality not only of opportunity, but of group performance; to shape character; to further personal development; to train youngsters for their future employment, for college, for lifelong education, for citizenship, for leisure, for retirement, and for God knows what else, all without the support—economic, political, cultural—that might conceivably allow any of those functions to be fulfilled adequately.

I am not blaming, but out of our fear of even appearing to blame, out of our reluctance to abuse a profession that includes many devoted and gifted teachers, we tend to avoid speaking about facts that are central to an understanding of the nature and sources of the growing numbers of underprepared students who are entering our colleges and universities.

More remedies, more problems

But if the quality and morale of teachers is absolutely crucial, the financing, the organization, and the curriculum of the schools are also sources of worry for higher education. The California State Board of Education, among others, recently pointed out that:

> *. . . the high schools now have fewer requirements and a wider variety of electives than they did a decade ago, allowing students and counselors more latitude to change course schedules that do not contain courses the University faculty considers important. At the same time, advanced electives are being eliminated so that schools can offer more basic courses for the poorer performers. Text-books have been rewritten at lower reading levels and are consequently not as challenging for advanced students. . . . Little homework is being assigned in many classes, reducing the amount of practice students get in skill areas . . . [All over the state schools have cut back from seven to six, and from six to five periods] reducing further the student's ability to take the courses needed for college preparation. . . . And individual teachers' workloads have increased, limiting the amount of attention they can give individual students and reducing the intellectual demands they can make in their classes (Report to the Policy Committee 1981, pp. 2–3).*

Ironically, all the remedies that we propose for the schools seem to generate only more problems. In states that have introduced competency tests for graduation, it has been observed that the school curriculum and its resources increasingly focus on the numbers and proportion of students who can pass those tests and thus earn their diplomas, at the expense of more demanding academic and college preparatory courses. In many places there has been a steady shift of resources away from the gifted students and the more demanding college preparatory tracks, and even away from the average, toward the slower and weaker students. Reports such as that of the National Assessment of Educational Progress in 1977, documenting that nearly half of the 17-year-olds tested could not read college freshman-level materials or perform basic mathematics, and that less than a third could write a unified and focused essay, understandably generate pressure

from parents and school boards for more and more attention to the plight of the educationally disadvantaged, and a focus in the high school on the most basic of basic skills. The result is what might be called the "cult of remediation"—a continued spiraling backwards over the syllabus for the benefit of the lowest third of the class, while the gifted and average students seek distraction elsewhere and anywhere outside the school to stave off the boredom of the classroom and curriculum. As a University of Wisconsin Task Force on Basic Skills put it dryly:

> *For whatever combination of societal reasons, the attitudes of many high school students have also shifted perceptibly, with apathy and disengagement from education prevalent. There has been a decline in student willingness to invest substantial work and effort in the learning process. Some academically talented students elect the less challenging paths and options created to serve the needs of those with other goals. Work-release programs and programs of reduced credits have encouraged the concept of education as a part-time phenomenon. Many teachers and students report a sense of postponement in secondary schools rather than a sense of serious responsibility for preparation (1979, p. 4).*

Another source of worry among academics, myself included, centers more on the behavior of our own institutions than it does on the schools and teachers. This is the concern that under the pressure of declining age cohorts and tight budgets, our enrollment-driven colleges and universities will subordinate everything, including academic standards, to the need to keep entering classes up to budgeted levels. And that too is an old American tradition.

What can, and should, we do?

In the face of all this what can we do? By "we" I mean we the faculty members and administrators of those colleges and universities that can neither screen out underprepared students through selective admissions processes, nor welcome all high school graduates, however ill-prepared, as a substantial part of our mission. The question I raise is not only what can we do, but should we do it? And how much of it? What are the costs to our institutions in money, time, and energy, and to our capacity to teach and do research at high and demanding levels? "What will increased amounts of remedial work do to the public research university?" is a question that stands alongside the question, "What are the consequences of not doing it?"

The task here is to define operationally what constitutes "adequate" preparation for college, and then to tell it to all the people . . . who shape the decisions that students make . . .

Much of what we should be doing we are already doing. Perhaps the broadest consensus in the university on this issue is that we should make known more widely and effectively to school people, to parents, and to high school students just what the university expects of them when they enter. The task here is to define operationally what constitutes "adequate" preparation for college, and then to tell it to all the people—principals, teachers, counselors, parents—who shape the decisions that students make and the courses they take, decisions and courses that in turn affect what they know when they come to college.

An example of this kind of effort is the report of the Advisory Commission on Articulation Between Secondary Education and Ohio Colleges to the Ohio Board of Regents and the State Board of Education. The commission was charged with the task of "developing a college preparatory curriculum that would clearly reflect collegiate expectations for entering students and, when followed, would reduce the need for remedial coursework at the collegiate level" (1981, p. 1). The report did that, not just in general terms regarding the number of courses or years of English and mathematics that college-bound students should be taking, but by specifying the skills and topics they should have mastered in their high school courses. The report develops a kind of normative syllabus for the high schools in algebra, geometry, trigonometry, and analytical geometry. Alongside that is a statement—again quite specific although differently couched—

regarding the skills in English that are expected of students entering college. The report also includes a section on teacher training and inservice education, as well as one on communication to the educational community, students, and parents. It is now widely recognized that a statement of academic expectations is no better than its dissemination.

A similar document was prepared in California by a committee composed of the representatives of the academic senates of the California Community Colleges, the California State University and Colleges, and the University of California. This report, entitled "Statements on Preparation in English and Mathematics: Competencies Expected of Entering Freshmen" is well along toward adoption by the academic senates of all three segments. Here also is a detailed specification of what reading and writing skills are expected, as well as a program for bringing these expectations to the attention of students, teachers, and parents of college-bound students. And of course there is the work of the College Board (1981) and its advisory committees in developing detailed statements of "The Basic Academic Competencies and the Basic Academic Curriculum."

The schools surely have some potential for strengthening their college preparatory work. But it is not altogether clear what that further capacity of the schools, as they are currently staffed and organized, may be.

A "statement of expectations" can take the form of exhortations and warnings about the difficulties that students will experience on entering the university if they do not take these courses and acquire these skills in high school. Or it can take the form of tougher requirements for admission, as it has in California. But in both cases the development of these statements, and the stress on their dissemination to the schools and the students, presupposes that there is an institution out there—the secondary school system—full of people who can prepare students appropriately if only they know what is expected.

Limits on improvement efforts, and the higher education response

The schools surely have some potential for strengthening their college preparatory work. But it is not altogether clear what that further capacity of the schools, as they are currently staffed and organized, may be. The "statement of expectations" approach assumes that schools can adjust their curricula and courses if they are better informed about what the colleges think best for college-bound students, and that students and parents will also make better decisions as they come to know more about what colleges want. The motivation and desire of all parties to strengthen the college preparatory component of secondary education is assumed, as is the capacity of the schools to carry out those intentions. Most will warmly concur with the spirit of those sentiments. But we are wise if we recognize the limits of their efficacy. Not all teachers or principals want to strengthen their college preparatory work, and many may not be able to do it even if they want to. It is sobering to reflect that in the moderately selective University of California almost all its entrants already meet the new and more stringent entry requirements of three years of high school math, and still large and increasing numbers of entering freshmen on examination show the need for remedial math work. Just taking the courses in high school does not ensure that the students learn the material, or retain it until they enter college.

Alongside the clarification of expectations and their communication to students, parents, and schools, there are two other broad strategies we in the colleges and universities can and to some degree do employ in response to this problem of the underprepared entering freshmen. One is familiar: the offering of remedial work—programs and courses that try to remedy in college academic deficiencies accumulated in the primary and secondary years. In 1980–81, without any central direction or coordination, the number of remedial courses taught in colleges and universities across the country rose by 22 percent, 25 percent in private institutions and 19 percent in public. "Even the more selective private liberal arts colleges . . . offered twice as many remedial courses in the fall of 1980 as in the fall of 1979"(*Chronicle of Higher Education* 1981, p. 8).

Everyone is in favor of providing remedial

work in college—at least until we begin to assess the costs. The decline in the ability and preparation of our entering students poses painful dilemmas for the faculty. A University of California report puts the issue very clearly:

> *The effects of underpreparation are felt not only by students, but also by faculty. Those we interviewed told us, unequivocally, that teaching has gotten harder, that a professor can no longer assume a common level of knowledge or skill in a class because preparation is so varied, but more importantly, that faculty are now being asked to handle problems, especially in writing, that they were never trained to handle.*
>
> *The faculty we talked to who are affected most by composition problems seem to see two choices. They can either spend a great deal of time on an individual basis helping students and reconsidering their own teaching methods, or they can ignore it, keep going as they are, leave the problems to learning specialists trained to handle them and invest their time elsewhere where they feel more comfortable and productive. One English professor said, "I have a choice in my Shakespeare class: fake it and teach the course anyway, giving the students C's or B's; or adjourn Shakespeare and teach writing."*
>
> *On top of this frustration, many faculty are also worried about class standards. If faculty members choose to spend their time working with students on writing, they have to assign less reading because students have a finite amount of time to spend on any course. If, on the other hand, they faculty chooses to ignore the problem, there is a fear they may assign easier reading, require less writing, and give more multiple choice exams, in order not to face problems in composition. And not assigning writing means less practice for students who need more, exacerbating the problem. . . .*
>
> *As one professor put it, "Everyone agrees that we should help students who need it, but what concerns us is that there are so many students who need it. Offering precalculus classes has decreased the availability of the upper division courses that should be taught by anything calling itself a University math department. There is now a little resentment about what the increase in service courses is doing to our department, and alarm about what will happen if it gets worse" (Report to the Policy Committee, p. 6).*

The costs of remedial work are felt in faculty morale, and in resources that are unavailable for regular course work. In the academic year 1979–80, the University of California spent over $5 million for basic skills courses and programs for underprepared students. Some of these programs and courses are not offered for credit, and thus are not included in the state support budget, but must be paid for by stretching the general instructional support funds. And that $5 million does not include the considerable amount of faculty time that goes into these preparatory courses.

To credit or not to credit

The issue of funding adds another wrinkle to the difficult question of whether to give credit for compensatory and basic skills courses. Some universities have come down on one side of that question, some on the other, while others, like the Wisconsin Task Force on Basic Skills, recommend giving elective credit for compensatory courses but within defined limits.

The fact that there are differences on this matter, both of views and of practice, is the best evidence for how soft is our concept of academic standards in higher education, and consequently how vulnerable those standards are to market pressures, especially the pressure to maintain enrollment at all costs.

There are, of course, good arguments on both sides of the credit issue. The obvious objection to offering credit for remedial work in college is that this reduces the amount of "college-level" "nonremedial" work a student will need for a degree. In a system that awards undergraduate degrees for the accumulation of credits rather than, as in Europe or in most graduate work in this country, on the demonstration of competence in an examination or essay, a lowering of the level of some of the credits will arguably reduce the level or quality of the work that the degree reflects.

The trouble is that differences in what first degrees represent in knowledge and skill vary so much between institutions, and between departments and disciplines within the same institution, that a certain dilution for a subset of students in the level of the work they take is probably not discernible after four years of college anyway. Moreover,

The arguments for credit are hard to disengage from the financial and political pressures behind them. If you do not grant credit for remedial work, who will teach the courses and who will pay for them?

the assumption on which our credit system is based is that students only learn what they are taught in credit-carrying courses. And we know that that is not true.

On the other hand, the firmness (or rigidity) of some university faculties, including my own, in resisting the awarding of credit for remedial work arises directly out of their sense of the vulnerability of the standards for college-level work, standards already weakened by diversity, competition, a shocking grade inflation since the mid-1960s, the powerful pressure of the market for enrollments, and the call for "relevance." If we grant credit for any remedial work, many faculty members ask, "Where will it stop?" And we have before us the cautionary lessons of the secondary curriculum, and its debasement under slightly different pressures, almost undefended by any conception of what constitutes standards for secondary school work or a high school diploma.

The arguments for credit are hard to disengage from the financial and political pressures behind them. If you do not grant credit for remedial work, who will teach the courses and who will pay for them? Can you legitimately charge students for courses for which they do not earn credit? And if not from students, where will the money come from, if state governments object, as some do, to paying twice for teaching skills and knowledge that should have been gained in the high schools? And, most insidiously (or persuasively), these remedial courses lay a foundation for the rest of college work; we teach these basic courses differently than in the high schools; and they are no easier, and rather more important, than many other things taught in college.

If we do not give credit for this work, and delay the student's progress toward the degree, other institutions *will* give credit, and they will get students who otherwise would come to us. This latter argument will become sharper and more persuasive over the next 10 to 15 years, as the size of the 18-to-22 age cohort decreases and the number of students needing remedial work increases.

Who should teach remedial classes?

But quite apart from the issue of credit, there are a host of problems for colleges in their remedial work. As these pre-college-level courses grow in number, who should teach them? Is this a responsibility of the regular faculty, recruited for the most part for their scholarship and research skills, and not on the whole enormously enthusiastic or even particularly gifted as teachers of the regular college-level introductory courses? Or should it be some volunteer subset of that faculty? If the latter, what of the effect on their careers, and of that, in turn, on the numbers volunteering? Or should it be a special group of teachers hired for remedial courses outside the ordinary appointment procedures of the university and without regular departmental affiliation or tenure? What then of the dangers of a body of second-class citizens within the university, doing a crucial job for it but inevitably with less compensation and status and more resentment? To what extent can the remedial work be shifted to neighboring community colleges, whose faculty members presumably have more experience and interest in students without strong academic preparation? Moreover, community colleges can often get state compensation for remedial courses when the university cannot. In my own university, though, there is strong resistance on the part of at least some experienced faculty to subcontracting to the community colleges what they see as an absolutely vital part of the introduction to the work of the undergraduate curriculum.

But whether it is in a community college or a university, students can learn intermediate algebra in 30 hours of class time whereas it may take 200 hours in high school—and even then may never really "take." What does that tell us about the effects of different expectations, or motivations, of schools and colleges as learning environments, or the quality of teaching, or the braking effect of the bottom third in school? We do not yet understand ade-

quately why college (almost any college) is so much more effective than high school in teaching the basic academic skills. Whatever the reasons, colleges are so much more effective (and cost-effective) in preparing their own students for their own programs that they will surely continue to offer remedial work, and expand those offerings until they are constrained by the demands of their own advanced work. Where that line is will differ in different institutions and is already a source of controversy in some.

The search for natural allies

We in the colleges can develop statements of expectation, and exhort schools and students to meet them. We can offer remedial work for our own entering freshmen. But there is another strategy available to college and university people faced with underprepared students, and that is the development of new and different and perhaps stronger links between higher education and parts of the secondary school system. While our colleges cannot by themselves reform and reshape the whole world of secondary education, they may be more successful if they search within that world for their natural allies, for those people, schools, or parts of schools that share their concerns for learning, for language, art, history, and science. We must look for the schools, the principals, and the teachers who care about the shaping of minds and character, the development of habits of work and leisure that will prepare young people to pursue their studies, in whatever subject, more deeply and seriously as they reach college age.

But while we focus on the public schools, from whence comes the bulk of our students, I think that we in the public universities and state colleges ought to discard our outdated hostilities to private and independent schools. It is an attitude that has largely been taken over from our schools of education. The American normal schools, the state teachers colleges, and the university schools of education, for obvious reasons, have been connected with the American public school system, but not in any comparable way with the independent and parochial schools. They for the most part have been ignored or opposed. But the independent and parochial schools, and especially the latter, are not all enclaves of wealth and privilege; in many cities, from Washington, D.C., to Oakland, California, parochial schools are an important vehicle for the social mobility of black and Hispanic children, and send a disproportionate number of minority students to colleges and universities. For whatever reasons, the independent schools, both secular and religious, have on the whole placed a greater emphasis on college preparatory work than have their public counterparts. Our colleges and universities should develop closer ties with the independent sector of secondary education, and the policies of the public universities toward the independent school should not be dictated by the attitudes and prejudices of their schools of education.

The high school/college relationship

What the nature of the relationships between college and university people and secondary school people should be is a difficult and sensitive matter. I suspect that we need to establish a variety of different forms of relationship, and learn which are more and which are less successful. Some universities may enter into very close relationships with one or more nearby high schools, accepting primary responsibility for their support and management, operating them as extended versions of the preparatory de-

Our colleges and universities should develop closer ties with the independent sector of secondary education . . .

partments that were so common in the 19th century. Or a college may take on the guidance and supervision of the junior and senior years of a number of feeder high schools, perhaps those with special concern for college preparation. Alternatively, a university may want to develop links with high schools along disciplinary lines, developing ties between, say, its own math department and a number of high school math departments, and within those departments with those math teachers who have the strongest professional interest in college preparatory work.

If we can help strengthen some parts of those institutions, sensitively and selectively, we may indeed see the effects on our entering freshmen.

At Berkeley, in a program keyed to minority students, "university math education staff, faculty, and graduate and undergraduate students work on a day-to-day basis with teachers and students in the classroom and with administrators and counselors" at eight inner-city schools (Schell 1981). The program offers a wide range of consultative services to the schools, all the way from assistance in strengthening the curriculum, sharing classroom instruction, and advanced study groups before and after school, to providing planning and management support for school administrators. We know that most high school teachers lack, and feel a desperate need for, greater professional and collegial support and stimulation, and some relief from their heavy loads of teaching within the confines of their own classrooms. The active interest of university faculty might be the catalyst to create such professional communities within the high schools for the teachers of English or math or [illegible] whose interests run more toward college preparatory programs than toward remediation or vocational training.

The difficulties and pitfalls in any such relationships are real. Nothing could be more destructive than an approach by academics as Lady Bountifuls bringing welfare baskets to their benighted brethren in the schools. Even without such insulting condescension, high school teachers may well respond to initiatives from the universities with the reply, "Please don't help us just now, we haven't quite recovered from the last time." The well-intended interventions of experts of all kinds in recent years have not on the whole made the life of ordinary high school teachers much easier or happier. Moreover, colleges and high schools are profoundly different kinds of institutions, governed by quite different norms and attitudes, marked by different institutional cultures.

But despite all the problems and difficulties, I believe there is much to be gained on both sides if the historic dividing lines between school and college are blurred and breached *selectively*, with those schools and school people who share concerns for academic work brought more closely into touch with academics who have a genuine interest in the preparation of our students in secondary schools. On a small scale we see high schools and colleges exchanging faculty for a term or two; on a large scale, high school teachers return to the university for summer workshops in their subjects. Establishing those links may begin to restore some of the rewards and status to secondary teaching that it has lost, and may even help to retain in the schools those teachers with academic interests and talents who currently leave faster than they can be replaced.

A limited role for education schools

But as we establish those links, in whatever form they take, we should not make them solely or primarily through our schools of education. The problem of the underprepared student is a problem for the institution as a whole and not for its school of education. A school of education may have a natural interest in the sources of the difficulties of teaching and learning in the schools, and in remedies for them. And such a school may play a useful role in helping through its research to illuminate the schools for an academic audience. But in the perennial tension between access and achievement, the schools of education on the whole have been a democratizing force, concerned more with the expansion of educational opportunity than with academic values. The actual institutional links between school and college must be with the university as a whole or with those academics and departments who have a special interest in the problems of articulation between high school and college.

We do not need a system of elite secondary schools (though we should cherish the ones that have survived), and we have our own traditions of articulation between school and college, stemming from the old academies, the preparatory departments, and the college preparatory tracks of public high schools. If we can reestablish such links and create new ones, we may contribute materially to the college preparatory work of the high schools. We still need our statements of expectation, clearly articulated and widely communicated to schools and students and parents. And I am sure that we will still need the costly and difficult remedial work in the universities and colleges. But we may now be getting closer to the roots of our problem, which lie in the schools themselves, their organization, finance, curriculum, and staff. If we can help strengthen some parts of those institutions, sensitively and selectively, we may indeed see the effects on our entering freshmen.

We should not underestimate the cost and difficulties of such an effort, not least in finding an answer to the question of who in the university will actually reach out and make the links with the high schools and with the people in them. But these links are being forged now; we need to learn more about what is happening, and how these efforts can be improved and extended. That may be the greatest service that we can perform for the secondary schools, for the college-bound students in them, and ultimately for ourselves in our colleges and universities.

Achieving a balance

The continuing crisis of secondary education will require public colleges and universities to play a larger role in the preparation of students for college-level work. But apart from clarifying and disseminating our expectations for college entrance, the other roles that we can play are, in varying degrees, expensive, and each has its costs and dangers to our central mission of teaching and research at high and demanding levels. We have no choice but to do more to raise the level of preparation of our entering students. But we must keep in mind what it is they are being prepared for. If we do not find and keep the right balance, if we allow our remedial roles and services to grow without constraint, then we may find our colleges and universities surrendering the very qualities that have enabled them to respond so quickly and effectively to the crisis of American secondary education. Our enormously successful system of mass higher education has been both a cause and a compensation for the failure of our junior and senior high schools. It would indeed be a tragic irony if our colleges and universities went the way of the high schools in the course of trying to remedy their deficiencies.

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A Search of the Database

Underprepared Learners: An ERIC Bibliography

The articles, papers, and reports listed here are extracted from the extensive ERIC (Educational Resources Information Center) database. The system of ERIC Clearinghouses, funded by the National Institute of Education, abstracts and indexes literature on education for NIE's monthly *Resources in Education*. Microfiche or paper copies of many of these materials may be ordered; for additional information, see the individual *RIE* entry. *RIE* is available in most college and university libraries.

Awardy, Joseph W., and Chafin, Carl K. **The Transitional Curriculum Program: Toward Learner Independence Through Developmental Education.** Paper presented at the National Developmental Studies Conference, Atlanta, November 1980. 28p. ED 197 662.

The paper describes Virginia State University's Transitional Curriculum Program, which is designed to develop underprepared learners into independent students. The developmental studies component is designed to improve basic skills by providing individually prescribed remedial coursework and skills laboratories. Under the transitional curriculum model, developmental courses will be taught by faculty from various departments and resources from the Student Assessment Center will be integrated into instruction. This center will initially diagnose student levels of achievement, monitor student progress, and provide counseling. Faculty development, general studies, and program evaluation components are also considered in the paper.

American Association of State Colleges and Universities. **Assisting Students to Succeed in Higher Education, Part I.** *Connections.* (vol. 2, no. 1, May 1980). Washington, D.C.: American Association of State Colleges and Universities, Urban College and University Network. 13p. ED 187 271.

This newsletter focusing on helping college students succeed opens with an essay by David Shrover examining experiences with developmental studies at the University of New Orleans and issues in serving underprepared students, especially problems of attitude on campus. Brief case studies are given of programs at California State University at Los Angeles, the University of Louisville, Housatonic Community College in Connecticut, the University of North Florida, the University of North Carolina, Queens College in the City University of New York, and Donnelly College in Kansas. A list of ERIC references, an explanation of the Urban College and University Network, part of the Fund for the Improvement of Postsecondary Education, and an introduction to the National Coordinating Council of Educational Opportunity Associations are also included.

Ashdown, Ellen. **Humanities on the Front Lines.** *Change* 11 (March 1979): 18–21. EJ 196 441.

The article discusses the difficulty encountered in teaching humanities to underprepared students at Florida A&M University, where 90 percent of the students are in the special admissions category that permits enrollment of students who score below the entrance requirement. Administrative neglect of the humanities is also addressed.

Brereton, John. **Learning from the Writing Crisis.** *Teachers College Record* 80 (December 1978): 356–64. EJ 200 518.

Recruitment of underprepared students, the policy of social promotion in the grades, and declining achievement of high school students—as measured by standardized tests—seem to be resulting in declining writing abilities among college students. Implications for college instruction and educational research are discussed.

Conrad, Delora P. **Design and Implementation of a Human Development Program at Northwest Alabama Junior College.** Ed.D. practicum, Nova University, May 1979. 83p. ED 192 821.

The Student Advancement in Learning (SAIL) project was instituted at Northwest Alabama State Junior College to increase the retention of high-risk students through a combination of courses and services in the areas of academic and personal development, career exploration, individual counseling, and financial aid. Objectives for each of the program's five developmental areas were established, focusing on the improvement of basic skills through existing courses, the provision of personal potential courses to enhance motivation and self-esteem, the acquisition and disseminationof career information materials, the establishment of two full-time counseling positions, and increased efforts to inform students of financial aid opportunities. SAIL's implementation involved a pilot project and the gradual integration of SAIL's courses and services into the college's programs.

Cooke, Winnie B. **Resources for Student Learning: Re-**

search Report, 1977. Whiteville, N.C.: Southeastern Community College, 1977. 228p. ED 154 866.

Southeastern Community College established the Resources for Student Learning (RSL) program as part of a national project sponsored by the Fund for the Improvement of Postsecondary Education. During 1976, a comprehensive evaluation of the success and/or reasons for failure of current and former RSL students was conducted. Underprepared students were found capable of competing with regular students if they received personalized attention from instructors, peer tutors, and counselors. Program success was indicated by: (1) RSL students persisting as well as regular students and significantly better than similar students not enrolled in the program; (2) no significant differences in achievement between RSL and regular students according to grade point averages, Cooperative English Test scores, hours attempted vs. hours earned, or the number on Dean's List, Honor Roll, and probation; (3) twice as many RSL than similar students not in the program on the Dean's List and Honor Roll; (4) and RSL students on probation getting off at twice the rate of similar non-program students. Information provided by teachers and students on program elements, including the Learning How to Learn Workshop, the Self-Scoring Comparative Guidance and Placement Program, and the tutorial program, preferred learning, and specific RSL sources is included.

Crawford, June Justice. **The Need for Basic Skills in Colleges and Universities.** Paper presented at a meeting of the International Reading Association, Atlanta, April 1979. 17p. ED 181 845.

The need for basic skills instruction at the college level is discussed in light of the history of U.S. educational standards, changes in college student populations, and indicators of need for basic skills programs. The basic skills program implemented at Niagara University in New York is described.

Creigh, Jocelyn. **Stepping Through the Open Door: The Underprepared Student and His Problems.** *English Quarterly* 10 (Winter 1977–78): 37–44. EJ 173 430.

This article describes the dubious successes of the "Learning Assistance Program" at a community college in British Columbia, discusses present and future considerations for solving problems and attending to the educational needs of students in that geographical area.

Dallas, Susan, ed. **The Literacy Crisis.** *CSCC Bulletin*, Issue 5. Los Angeles: Center for the Study of Community Colleges, 1982. 6p. ED 220 131.

Evidence suggests that compensatory programs of individualized counseling and tutoring as a supplement to remedial coursework are effective in increasing reading levels and lowering dropout rates. However, these programs also introduce a number of problems and questions of program design, costs, teacher morale, and selective admissions. Several options are available to colleges to reconcile the conflict between maintaining academic standards and open admissions. Most practical and desirable may be to allow any student to enroll in any course, but to limit the number of courses a poorly prepared student may take and mandate the use of support services. Poor writing ability may be improved by an approach called "writing across the curriculum." Brief descriptions of remedial, English as a Second Language, and study skills programs at six multi-campus urban community college districts are included.

Donovan, Richard A., et al. **The Final Report of National Project II: Alternatives to the Revolving Door.** Bronx, N.Y.: Bronx Community College, 1977. 61p. ED 151 054.

Results of a national project to examine programs designed to aid college and university students not adequately prepared for postsecondary education are reported. Ten associate institutions were selected to form a consortium on the basis of evidence of success from relatively small, special programs for underprepared students. The programs included the Upward Bound Veterans Program at Oscar Rose Junior College, the Teaching Center at the University of Florida, Educational Opportunity Programs at Marquette University and California State University at Fullerton, Resources for Student Learning at Southeastern Community College, the People Center at the College of Staten Island, the Study Skills and Counseling Program at Malcolm-King Harlem College Extension, and the College Assistance for Migrants Program at St. Edward's. Abstracts of final reports from eight institutions and the Thirteen College Curriculum Program of the Institute for Services to Education are presented. Concluding essays on research and program evaluation precepts and practices, affective considerations, program evaluation in terms of cognitive achievement, and policy issues, research agendas, and programmatic concerns, discuss the implications of project findings.

Fairbanks, Marilyn M., and Elliott, Mary K. **Reading and Writing: Relationships and Functional Reading Component in a Freshman Composition Course for Underprepared Students.** 1979. 11p. ED 195 939.

A study was conducted focusing on three aspects of a developmental English program in which underprepared freshmen were able to earn regular composition credit while receiving additional help in both reading and writing. An examination of the scores on the Iowa Silent Reading Test compared to scores on two writing tests was made and some significant relationships were noted. The developmental English program, which provided extra class hours and help in reading the required English textbook, was discovered to be moderately successful. The predictive value of specific reading-related factors on the developmental course grade was explored and no relationships were found.

Friedlander, Jack. **An ERIC Review: Should Remediation Be Mandatory?** *Community College Review* 9 (Winter 1981): 56–64. EJ 261 977.

This article examines and evaluates three approaches used by community colleges to provide academic assistance to educationally underprepared students: offering compensatory programs and services as electives; requiring certain students to participate in skills courses; and offering basic skills instruction as part of regular courses.

Garstka, Polly. **The Role of Tutoring in Community Colleges.** Graduate seminar paper, Pepperdine University, March 1979. 38p. ED 168 613.

The role of tutoring services in special programs designed to meet the needs of nontraditional community college students was studied through a review of the literature on history of tutoring programs, the development of special programs to meet the remedial, developmental, and compensatory education needs of underprepared students, special programs featuring tutoring components, and the characteristics of peer tutoring. Additionally, tutorial service coordinators at Los Angeles community colleges were interviewed to determine what procedures contribute to a successful tutoring program, and the West Los Angeles College Tutorial Center was analyzed.

Greenbaum, Allen. **An Holistic Approach for Assisting Educationally Underprepared Students.** *Journal of Developmental and Remedial Education* 4 (Spring 1981): 10–12. EJ 249 011.

This article describes the Supportive Services Program

(SSP) at the University of Minnesota, Duluth, focusing on program objectives and components, the three-stage academic assessment process, the structure of SSP courses, the use of peer assistants, cluster scheduling, advising, and the experiences and reactions of SSP students.

Handleman, Chester. **Teaching Underprepared Students at the Community College.** *Educational Horizons* 58 (Winter 1979): 118–23. EJ 222 885.

The author contends that limiting instructional innovation and upgrading academic standards will benefit both high-risk and traditional community college students. He presents results from instructor surveys and studies favoring the more traditional teaching, grading, and testing methods and includes suggestions for improving study skills and writing instruction.

Hawkins, Joseph A., Jr. **Factors Associated with Successful Completion of a College Compensatory Program or Program Evaluation May Lead to "Bad" News.** Draft. Rockville, Md.: Montgomery County Public Schools, Department of Educational Accountability, July 1980. 18p. ED 201 717.

This paper examines Howard University's Center for Academic Reinforcement (CAR), which provides college compensatory education to underprepared students. Research findings from CAR and the academic and nonacademic factors related to students' successful completion of the program are discussed. The research findings reported include: (1) the degree to which Scholastic Aptitude Tests predict performance in CAR; (2) the role of class attendance and learning laboratories; (3) the relationship between self-concept and academic achievement of the CAR student; and (4) the value of a special summer program.

Jones, Arnold P., Jr. **Providing for the Underprepared College Student.** 1979. 9p. ED 181 945.

A large percentage of the Chicago City Colleges' enrollment scores in the lowest third on tests of academic ability. These students are not traditional college students, and it is a mistake to try to make them fit the traditional student mold by focusing on remediating academic, motivational, and financial deficiencies. Instead, the college must provide many opportunities for success and activities that enhance students' self-concepts. Curricula and support services must emphasize students' strengths and not their weaknesses. Seligman's experiments with the learning patterns of dogs may provide some insight into the effects of repeated failure, and Atkinson and Feather's study of achievement motivation may provide guidelines for motivating the "failure-threatened personality." To ensure equal opportunity as well as equal access, alternative teaching approaches should be attempted to accommodate varied learning styles, academic standards must be maintained, and the gap between the nontraditional student and the traditional college should be narrowed.

Kraetsch, Gayla A. **The Role of Community Colleges in the Basic Skills Movement.** *Community College Review* 8 (Fall 1980): 18–23. EJ 239 082.

This article focuses on: the findings of studies of the characteristics and prevalence of underprepared college students; the status of the basic skills movement and of state-level basic skills testing programs in each state; and responses community colleges must make to deal with underprepared students.

Ludwig, L. Mark. **Educational Consulting Study: Special Techniques for Assisting the Underprepared College Student.** Working Papers on Professional Development in Teaching, No. 5. Ohio: Cleveland Commission on Higher Education, 1977. 31p. ED 175 324.

The special cultural and socioeconomic circumstances that make traditional approaches to teaching ineffective for the underprepared student are examined and techniques for assisting these students are presented. Some innovative approaches that have proven effective, and the learning theory upon which they are based, are summarized. An individualized instructional program used in teaching social sciences at Cuyahoga Community College is described. The model and techniques presented require less expense for implementation and maintenance than other similar programs.

Luna, Pete R. **Community Colleges and Partnerships: Moving Beyond Dialogue for the 1980's.** Paper presented at the Annual Community College Research Conference, Asilomar, Cal., March 1981. 19p. ED 202 494.

This paper outlines the special problems of students participating in a cooperative program undertaken by the University of California at Los Angeles and four neighboring community colleges to help underprepared community college transfer students succeed at the university level. As a means of illustrating the disproportionate number of two-year college students who transfer to universities with skill deficiencies, as well as to emphasize the desirability of including secondary schools in cooperative remedial efforts, the paper then cites the findings of a test conducted to: (1) diagnose the skill levels of freshmen and community college transfer students entering UCLA during 1973–74, and (2) assess the skills of freshmen entering Rio Hondo College from a California high school district in 1979–80. Finally, the paper presents a model for a cooperative effort among high schools, community colleges, and universities, that would minimize the duplication of remedial activities.

Obler, Martin, et al. **Combining of Traditional Counseling, Instruction, and Mentoring Functions with Academically Deficient College Freshmen.** *Journal of Educational Research* 70 (January–February 1977): 142–47. EJ 161 281.

The problem of admitting underprepared students to an urban university is discussed, and a study is reported that found disadvantaged freshmen did significantly better than a control group when offered counseling, instruction, and tutoring by a specially trained faculty team.

Richardson, Richard C.; Martens, Kathryn J.; and Fisk, Elizabeth C. **Functional Literacy in the College Setting.** AAHE-ERIC/Higher Education Research Report No. 3, 1981. Washington, D.C.: American Association for Higher Education, 1981. 52p. ED 211 032.

The prevalence of underprepared students attending colleges, the need to define literacy requirements of courses, the implications of research on literacy in the design of remedial programs, and the need for systematic evaluation of such programs are considered. Literacy is broadly defined as a language competence that is used to achieve both individual and societal goals. Literacy has a functional dimension, involving the specific competencies required to perform in the occupational field for which an academic program prepares students, and a symbolic dimension, which is associated with having knowledge, cognitive competence, and values established in society. It is proposed that policies involving issues of literacy and its development are adequate only when all components of its definition are considered: (1) the nature of the language involved; (2) the way the language is processed; (3) the context in which the language is processed for use; and (4) the functions of this use in relation to specified goals. Attention is directed to teaching methods, institutions' support for organization of developmental programs, and common practices and problems in the evaluation of developmental programs.

Roueche, John E., and Armes, Nancy R. **Basic Skills Education: Point–Counterpoint.** *Community and Junior College Journal* 50 (March 1980): 21–24. EJ 228 425.

This article cites results of recent studies about deteriorating basic skills of community college students. It presents opposing views on developmental education by John Roueche (EJ 189 264) and Arthur Cohen (EJ 201 762) and arguments in favor of providing for underprepared students through specialized, developmental "intensive care units" built around prescriptive counseling and community and support groups.

Schiavone, James. **Effectiveness of Remedial Reading Courses in Upgrading Skills of Underprepared Students Who Entered Manhattan Community College Under the Open Admissions Policy.** Ed.D. practicum, Nova University, 1977. ED 134 284.

Beginning with the spring 1974 semester, all incoming students at Borough of Manhattan Community College (New York) were tested in reading. Students achieving scores lower than the fifth stanine on beginning grade 12 norms were required to take a remedial reading course. The objective of the remedial reading program was to develop minimal 12th grade reading skills in students requiring remediation. Post-test scores were compared to placement scores and midterm scores for 30 classes of remedial reading students in fall 1974 (n = 760) and fall 1975 (n = 623). Results indicated mean gains of approximately four grade levels for one semester of instruction. However, only 55% of the remedial students successfully passed the course by meeting the 12th grade criterion.

Shabat, Oscar E., et al. **First National Mastery Learning Conference: Summary of the Conference Proceedings.** Chicago: Chicago City Colleges, 1980. 43p. ED 205 243.

Proceedings include pieces by: Oscar E. Shabat, on the importance of mastery learning to community colleges as they attempt to educate large numbers of underprepared students; Benjamin S. Bloom, on the shifting emphasis in education research from investigations of static student and teacher characteristics to examinations of alterable variables that can be used to adjust the learning process according to individual student needs; Rocco Caponigri, on the pioneering research of John Carroll and Benjamin Bloom and the Mastery Learning Program at the City Colleges of Chicago; Thomas Guskey, on faculty and student orientations to mastery learning, concerns of teachers when first applying it, and methods of evaluating mastery learning programs; Emmett Jones, on orientation sessions used to familiarize students with the mastery learning approach; Hymen M. Chausow, on mastery learning as an affirmation of teachers' professionalism and as a means of reducing student attrition; and summaries of workshops on the development of topical outlines, instructional objectives, formative quizzes, corrective processes, and summative evaluations.

Sidel, Celia Marie McCullough. **Personal Development and Comprehensive Support Services.** 1980. 13p. ED 209 987.

The paper discusses holistic educational advancement programs at the University of Tennessee, Knoxville, designed to develop the potential of underprepared and disadvantaged students. Obstacles to success include problems in adjustment to university life, loneliness, and negative self-concept. It is suggested that support services be integrated with the broader curriculum.

Smith, Kurt B., ed. **Assisting Students to Succeed, Part II.** *Connections* (vol. 2, no. 2, November 1980). Washington, D.C.: American Association of State Colleges and Universities, Urban College and University Network. 13 p. ED 201 221.

Programs serving underprepared college students at urban colleges and universities are examined. Pace University of New York City operates a one-year program for students who do not meet school requirements for admission in order to help them complete four years of college. Another program for students who cannot be admitted into the regular curriculum courses is offered by the Developmental Studies Department of Thomas Nelson Community College in Hampton, Virginia. Special services for disadvantaged students and developmental studies courses offered by Northern Kentucky University, near Cincinnati, are specifically directed to small-city and rural students who are unprepared for college. The keystone of the program's instructional efforts is paired and blocked courses. A mandatory program for high-risk students is offered within the School of General Studies at the Calumet Campus of Purdue University. The College Life Program at the University of New Orleans attempts to help underprepared students enter the learning mainstream through intensive instructional, tutorial, counseling, and other services. Learning laboratories in a number of disciplines, some of which are exclusively developmental, are operating at Miami-Dade Community College in Miami. A trip once a year for black students at Grand Rapids Junior College in Michigan is undertaken to visit predominately black universities and colleges in order to motivate low-performance students by allowing them to meet role models. Issues identified by a team that visited four campuses offering basic academic skills programs are also examined.

Tang, Melanie, and Watson, Wallace S. **A Three Ring Circus Approach to Basic Writing Instruction.** *Journal of Developmental and Remedial Education* 4 (Winter 1981): 7–8, 10. EJ 244 411.

This article describes the development of Park College's writing workshop approach to remediating students' writing skills deficiencies, focusing on: the large number of underprepared students at Park, the various approaches that had been utilized unsuccessfully, and the benefits of the six-hour per week workshop with regard to students' reactions and academic gains.

Truckee Meadows Community College. **Individualized Learning Skills Curriculum Development: Final Report.** Sparks, Nev.: Truckee Meadows Community College, February 1982. 48p. ED 211 822.

The Truckee Meadows Community College curriculum development project was designed to enhance the success of underprepared students in the college's occupational and general education programs. Initial plans called for (1) the development of individualized learning and basic skills modules; (2) creation of an open-entry, open-exit, individualized, self-paced, mastery level, for-credit program in basic and learning skills; and (3) development of a contractual competency-based curriculum with objectives and units small enough for the underprepared student to manage. A pilot project, begun in fall 1981, included acquiring existing curriculum materials, developing handouts for students, and creating procedures and policies for a Learning Assistance and Study Skills Center.

Walmsley, Frank. **A Course for the Underprepared Chemistry Student.** *Journal of Chemical Education* 54 (May 1977): 314–15. EJ 161 083.

This article discusses a course designed for large numbers of underprepared chemistry students at a large metropolitan university; an evaluation of the course based on student performance in succeeding courses is included.

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